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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/990,273	11/23/2001	Chun-Yang Hsiao	MR2707-3	2404
4586	7590	11/03/2005		
ROSENBERG, KLEIN & LEE 3458 ELLICOTT CENTER DRIVE-SUITE 101 ELLICOTT CITY, MD 21043			EXAMINER KIM, DAVID S	
			ART UNIT 2633	PAPER NUMBER

DATE MAILED: 11/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/990,273	Applicant(s) HSIAO ET AL.	
	Examiner David S. Kim	Art Unit 2633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1, 7 and 12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 7 and 12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 May 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION****Specification**

1. Applicant's compliance with the objections to the specification in the previous Office Action (mailed 12 January 2005) is noted and appreciated. Applicant responded by amending portions of the specification. Thus, the previous objections are withdrawn.

**Drawings**

2. The replacement drawings were received on 12 May 2005. Fig. 3 is approved. However, Fig. 5 is disapproved. Fig. 5 is objected to because the middle (Fig. 5(B)) and bottom (Fig. 5(C)) diagrams do not appear to accurately reflect the specification's description of the operation of Applicant's invention.

In Fig. 5(B), "OUT1/OUT2" labels a signal output that may correspond *only* to port OUT1. In particular, the first full paragraph on page 7 of the specification teaches the output of "the *inverse* of the carrier FRE." Fig. 5(B) does not show the output of this *inverse* of the carrier FRE. Rather, it appears to simply show the output of the carrier FRE, as described in relation to port OUT1 in the last paragraph of page 6 of the specification.

Similarly, in Fig. 5(C), "OUT1/OUT2" labels a signal output that may correspond *only* to port OUT2. In particular, the last paragraph of page 6 of the specification teaches the output of "a carrier FRE." Fig. 5(C) does not show the output of this carrier FRE. Rather, it appears to show the output of the *inverse* of the carrier FRE, as described in relation to port OUT2 in the first full paragraph of page 7 of the specification.

3. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the

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filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

**Claim Rejections - 35 USC § 112**

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. **Claims 1, 7, and 12** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In particular, notice the following limitation in independent claim 1:

“a select control signal to select between said data signal being output to said output of said multiplexer and said carrier signal ***modulated by said data signal*** being output to said output of said multiplexer” and

“transmitting an infrared or ultrasonic ***modulated*** carrier signal” (emphasis Examiner’s).

Also, notice similar limitations in independent claim 7 (and dependent claim 12):

“said first multiplexer outputting one of said first data signal and said carrier signal ***modulated by said first data signal*** to said first output” and

“said second multiplexer outputting one of said second data signal and said inverse carrier signal ***modulated by said second data signal*** to said second output” (emphasis Examiner’s).

Although Applicant’s disclosure teaches the output of either a data signal or a carrier signal from a multiplexer (Fig. 3; p. 6, last paragraph – p. 7, first full paragraph), Applicant’s disclosure lacks any teaching of outputting a carrier signal “modulated by said data signal.” Rather, Applicant’s disclosure does not mention any modulation of any carrier signal by any data signal. Accordingly, these instances of

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a carrier signal "modulated by said data signal" constitute new matter. Thus, claims 1, 7, and 12 contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

### **Response to Arguments**

6. Applicant's arguments with respect to claims 1, 7, and 12 have been considered but are moot in view of the new ground(s) of rejection. In particular, Applicant's most recent amendment to the claims, filed on 10 May 2005, introduces new limitations to the claims.

The prior art references previously applied under 35 U.S.C. 102 and 103 do not read on these new limitations. Also, the new limitations are not obvious in view of these references. Accordingly, the previous 102 and 103 rejections are withdrawn.

Additionally, the prior art references previously applied under the judicially created doctrine of double patenting do not read on these new limitations. Also, the new limitations are not obvious in view of these references. Accordingly, the previous double patenting rejections are withdrawn.

Applicant's arguments are based on these new limitations. However, these new limitations constitute new matter. Accordingly, these claims are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

### **Conclusion**

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Adachi is cited to show a transmitter with a component (6 in Drawing 1) having a first input for receiving a data signal and a second input for receiving a carrier signal, said component selecting between said data signal and said carrier signal being output to an output of said component.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date

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of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David S. Kim whose telephone number is 571-272-3033. The examiner can normally be reached on Mon.-Fri. 9 AM to 5 PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on 571-272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DSK

  
**JASON CHAN**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**

Approved by DSK  
 27 September  
 2005

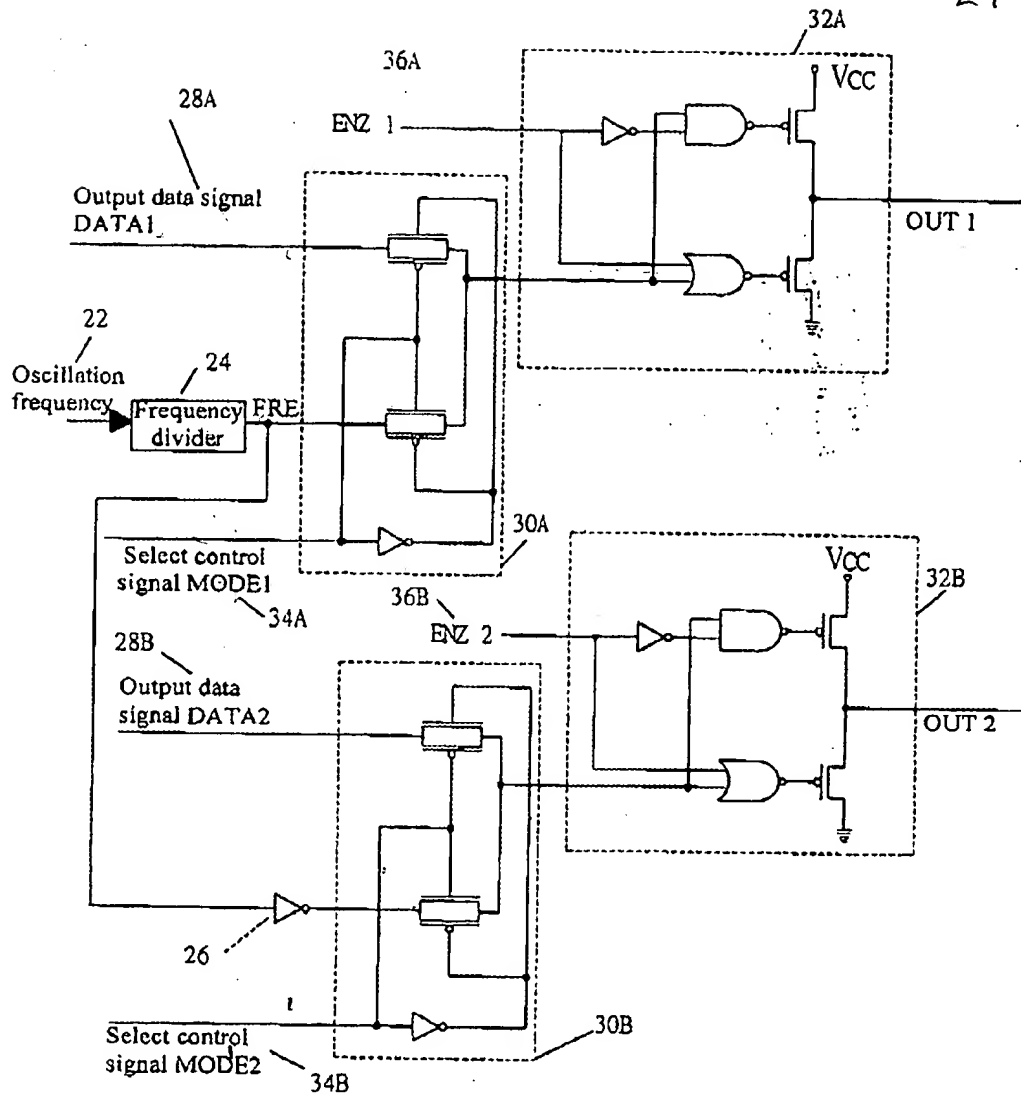


Fig. 3

Disapproved by

PSK

27 September  
2005

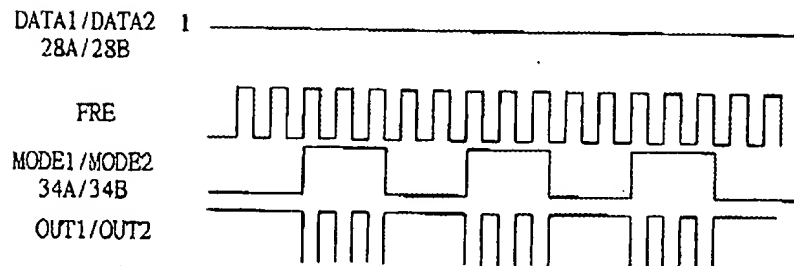
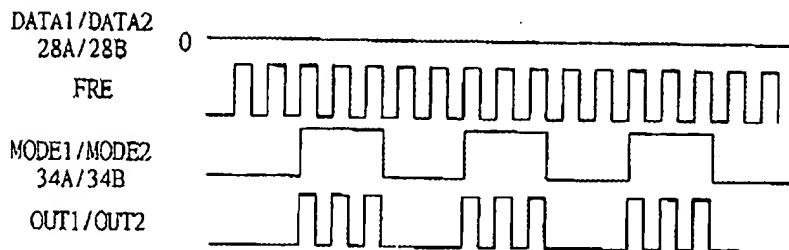
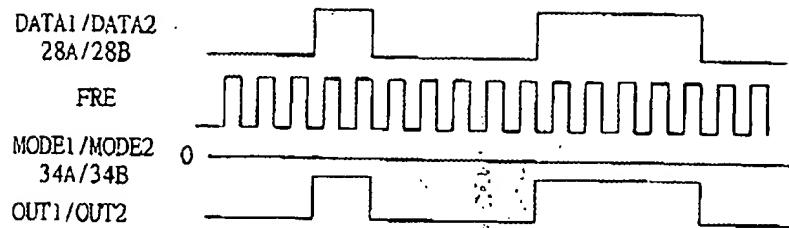


Fig. 5